

Q&A: ICD-10-CM reporting for demand ischemia

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Ed O'Beirne, CCS, PA, CDIP,
answered this question

Q: What is the difference between ICD-10-CM code I24.8 (other forms of acute ischemic heart disease) and code I21.A1 (myocardial infarction type 2)? In which situation would each of these codes be reported?

A: ICD-10-CM code I24.8 would be used for demand ischemia where the patient did not have a current myocardial infarction (MI). This code also covers other forms of ischemic heart diseases. ICD-10-CM code I21.A1 is reported for a current MI due to demand ischemia.

Ischemia is due to oxygen starvation to some or all of the heart. It will usually cause EKG changes and often will cause enzyme elevations (e.g., troponin I, creatine kinase-muscle/brain), but ischemia does not result in permanent damage to myocardium (heart muscle tissue). The EKG will therefore return to normal after ischemia resolves. The degree and/or duration of ischemia may proceed to actual infarction, which is a permanent death of some of the myocardium. This causes a recognizable pattern in EKGs acutely but also permanently thereafter.

Demand ischemia is a specific type of ischemia where the oxygen requirements of the myocardium are not being met due to some increased need. In pure demand ischemia, there is no stenosis in the coronary arteries, yet the volume of oxygen-containing blood is insufficient to meet the needs of the heart muscle. Conditions where the heart is working harder and/or faster such as infection, anemia, tachycardia, or overexertion may cause demand ischemia.

Editor's Note: This article originally appeared in Revenue Cycle Advisor. Ed O'Beirne, CCS, PA, CDIP, director of HIM revenue integrity at HRG in Spokane Valley, Washington, answered this question.

Welcome to the AzACDIS
Newsletter!

Announcements:

Please remember to fill out the ACDIS online membership roster by [clicking here](#).

Plus, chapter members who fill out the online roster will automatically receive a discount on national ACDIS membership at the conclusion of the roster form!

Save the Date!

Lunch and Learn:

Sept 18, 2020

“HAC and PSI... What is all the confusion about?”
by Dr. Brundage

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2020 ACDIS Achievement Award winner for “Rookie of the Year”

Congratulations Steve!



Steven R. Ballantyne, RN, is a CDI specialist at Banner Health in Phoenix, Arizona. His background includes 10 years of acute care, four years of correctional nursing, and one year of case management/utilization management.

Steve joined the CDI team in August 2018 after doing the difficult work of educating himself by enrolling in an ACDIS Boot Camp followed by the ACDIS Apprentice Program. Steve then found a mentor who helped him land his current position.

His colleague says that “Steven has a passion for serving others.”

A veteran of the U.S. Army, he does volunteer work with his church as well as local community organizations to help prevent abuse.

Not only has he shown tremendous growth in his role, Steven has worked on process improvement activities, proposing a new coding/CDI mismatch process, working toward developing a stakeholder-requested report for heart failure length of stay information.

“As a new CDI specialist, Steve has participated in ICU resident education, sending daily census reports and length of stay reports, assisted with developing a DRG focused length of stay report for stakeholders. And, during orientation wrote the highest financial impact query of the quarter for the entire CDI department,” one of his nominators wrote.

Another colleague says that “Steve is one of the kindest, supportive, and knowledgeable people in the field of CDI.”

Steven’s advice to new CDI Specialists is, “The best advice that I could give to a new person wanting to get into CDI is be persistent. I tried to prepare myself to not feel completely out of place when I finally got a position and the ACDIS programs were a considerable help. I was willing to relocate to wherever I was offered a job. My peers have been the best resource beyond the initial company training and orientation, so find those resource people and develop a good professional relationship, they are a great source of knowledge and someone to share concerns with and bounce ideas off. I love learning new things every day, and this job does just that. I love what I do now, I can still use all my nursing skills and protect my ever aging back.”

ELMO?



No, ECMO

Becky Buegel, RHIA, CDIP, CHP

Extracorporeal Membrane Oxygenation, or ECMO, is an advanced life support technique used on patients with life-threatening heart and/or lung conditions. Used when all standard treatments for these conditions have failed, this highly specialized treatment has the ability to support patients for days, and even weeks, while their underlying illnesses are treated. ECMO provides long-term breathing and heart support. Using a machine similar to the heart-lung bypass machine used during open heart surgery, the ECMO machine is often referred to as a “circuit.” This very large machine has sterile plastic tubing that moves blood from the patient to the ECMO “lung” and then returns it to the patient. Oxygen is added to the blood while carbon dioxide is removed, acting just like a properly functioning lung would.

Extracorporeal = outside the body

Membrane = a type of artificial lung

Oxygenation = the process of adding oxygen to the blood



ECMO falls under the umbrella term – ECLS – extracorporeal life support – which includes a variety of modalities of temporary mechanical cardiopulmonary assistance. The main objective of ECLS (and ECMO, by association) is the provision of systemic perfusion and gas exchange that allows the heart and lungs to recover. It can also be a bridge to another modality of mechanical support and even to transplantation.

There are several different versions of ECMO:

Central ECMO

Blood is drained via a large venous cannula from the right atrium under negative pressure, transferred through the oxygenator, and then returned to the body via a cannula into the ascending aorta. When anticipating longer than a few days’ support, the cannula can be tunneled under the skin chest.

Peripheral VA ECMO

Blood is drained from the inferior vena cava (IVC) via a femoral cannula. The blood passes through a centrifugal pump and oxygenator, and returned to the patient via the femoral artery. A reperfusion line is used to ensure distal limb perfusion.

Veno-venous ECMO

Like the peripheral VA ECMO, blood is drained from the IVC and passes through an oxygenator; once oxygenated, the blood is returned to the venous system via the right atrium.

The origins of the ECMO machine dates back to the 1960s, when researchers sought to improve heart-lung bypass machines. While the bypass machines perform the work for a non-beating heart and can only be used for a few hours, the longer the person is on the bypass machine, the greater the risk for complications. ECMO does not require an open chest and uses tubes attached to large blood vessels in the neck and leg; it performs like the patient's lungs, exchanging O₂ and CO₂.

Reasons for using ECMO vary and include (but are not limited to):

Infants: Respiratory distress syndrome; congenital diaphragmatic hernia; sepsis

Children: Pneumonia; congenital heart defects; aspiration of toxic materials

Adults: Trauma; heart support after cardiac surgery; a bridge to a primary lung transplant.

For further information, YouTube.com has some excellent videos about ECMO, including "What is ECMO?"

<https://www.youtube.com/watch?v=0Aaz3Nregzs>

References: <https://www.healthline.com/health/extra-corporeal-membrane-oxygenation#uses> ;
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5337209/> ; http://articles.chicagotribune.com/2000-03-13/news/0003140069_1_artificial-lung-patients-with-respiratory-failure-ecmo

Clinical Practice Guidelines for Adults with Pneumonia (PNA)

M.E. VanGelder, RN, BSN, MEd, CCDS, RHIT
RN Network CDI Trainer
Honor Health

The updated guidelines attempt to better identify people at risk for pneumonias due to multidrug-resistant bacteria such as Gram-negative rods (i.e., *Pseudomonas*) and methicillin-resistant *Staphylococcus aureus* (MRSA). One important difference between the 2007 and 2019 guideline is that it recommends more microscopic studies of respiratory tract samples in some subgroups of patients to avoid unnecessarily prescribing therapies for drug-resistant bacteria.



Community Acquired Pneumonia Recommendations (CAP)

Non-severe CAP without risk factors for MRSA or *P. aeruginosa*

- Inpatient setting antibiotic regimes:
 - ✓ Combination therapy with beta-lactam
 - Ampicillin q 6 hr. + Rocephin q 8hr / Azithromycin or Biaxin daily / Doxycycline 100 mg twice daily
 - ✓ Monotherapy – Levaquin or Avelox daily

Gram-Negative and MRSA Pneumonias Risk Factors

Risk factors include one of the following:

- Prior hospital encounter and use of IV antibiotics within the past 90 days
- Receipt of home infusion parenteral antibiotic therapy within the past 90 days
- Known Pseudomonas colonization or infection in the prior 12 months
- History of previous infection with Gram neg rods or MRSA in the past 12 months
- Detection of Gram neg rods/MRSA in sputum gram stain
- Known MRSA colonization, or + MRSA respiratory culture in past 12 months

Gram-Negative Pneumonia

- Patient subgroups at risk for gram negative PNA include those with:
 - ✓ Structural lung disease such as
 - Bronchiectasis
 - Cystic fibrosis
 - COPD
 - ✓ Immunosuppression/compromised conditions such as
 - Diabetes
 - Chronic malnutrition
 - Transplant patients on chronic immunosuppression
 - Chronic heart failure
 - Liver disease
 - Chronic kidney disease
 - Cancer
 - HIV with reduced CD4 count
 - Autoimmune disorders
 - Immunosuppressive drugs (chronic prednisone use, chemotherapy)
 - ✓ Inpatient setting antibiotic regimens:
 - Zosyn
 - Cefepime
 - Fortaz
 - Aztreonam
 - Imipenem/meropenem
 - Aminoglycosides (i.e., Tobramycin)
 - Quinolones



Admissions from SNF, dialysis units, home health patients receiving wound care are not by themselves sufficient criteria to support a Gram neg PNA in the absence of bacteriological confirmation of a specific organism.

MRSA Pneumonia

- Risk factors for MRSA PNA:
 - ✓ Cavitory infiltrate or necrosis
 - ✓ Gross hemoptysis

- ✓ Concurrent influenza
- ✓ Neutropenia
- ✓ Erythematous rash
- ✓ Skin pustules
- ✓ Previously healthy patient with severe PNA
- ✓ Severe PNA during the summer months

One of the previous risk factors must be present in conjunction with appropriate antibiotic coverage. This means at least one of the following antibiotics must be taken for a minimum of five days (unless cultures allow for de-escalation of treatment).

- Inpatient setting antibiotic regimens:
 - ✓ Vancomycin
 - ✓ Zyvox
 - ✓ Vibativ

Upcoming ACDIS Events, Education, and CEUs:

Virtual Education Curtain Call: Behind the Scenes of Star-Studded CDI Programs

September 22-25, 2020

[Register Today](#)

Virtual Education Curtain Call: Behind the Scenes of Star-Studded CDI Programs

ACDIS' online education **Curtain Call: Behind the Scenes of Star-Studded CDI Programs** is a three-day, online, event focused on highlighting exceptional CDI programs. Its sessions offer insight into both clinically significant record review priorities as well as programmatic best practices and areas for innovative CDI approaches.

Thanks to ACDIS' sponsors and exhibitors, attendees of this free event will hear from cutting-edge CDI programs about their organizational journey and have the opportunity to learn from, and exchange ideas with, a broad network of peers and sponsors. Attendees will gain insight from the unique expertise of industry thought leaders heading up some of the most successful CDI-related organizations in the country.

ACDIS' **Curtain Call** event has take-home educational opportunities for every CDI professional, offering up to 11 continuing education credits for the Certified Clinical Documentation Specialist (CCDS) and CCDS-Outpatient (CCDS-O) credential.

This event is open to CDI professionals working in the provider setting, for a hospital or a hospital organization.

At the conclusion of this program, participants will be able to:

- Understand the role of the CDI educator
- Implement an orientation process
- Define the role of CDI in patient driven payment model reimbursement efforts
- Identify query opportunities related to surgical complications
- Create physician education videos to further CDI engagement
- Develop clinical indicator definitions for common diagnoses
- Leverage data to drive discharge reconciliation
- Standardize CDI program query practices
- Understand vascular surgery documentation opportunities

Staying Engaged: ACDIS Presents Virtual Education & Community

Now Available On-Demand! (The live dates for this event were 6/16 -6/18)

Practicing social distancing is a must during the COVID-19 outbreak. But that doesn't mean education and networking must stop. In fact, they're more important than ever. While you may have missed the live event, it was such a success we are now offering you the on-demand experience.

Please join us for *Staying Engaged: ACDIS Presents Virtual Education and Community*. Earn valuable CEUs and receive the same quality content you've come to expect from ACDIS. The on-demand experience allows you to listen to and digest all the expertise and knowledge shared by our industry leading speakers at your own pace and on your own time with full access for 60 days.

Attendees of this one-of-a-kind event will receive ongoing access to all educational sessions. Whether you're a newly minted professional or an industry veteran, you won't want to miss out on this special virtual event. Learn, stay in touch with the CDI community, and help support your professional association—all in one convenient, easy-to-use package.

Here are some important details on how this one-of-a-kind virtual event will work:

- Daily opening sessions will be webinars featuring video chat component with host, ACDIS Director Brian Murphy and panelists.
- Conference agenda is a suggested schedule; participants may view any sessions at any time at their convenience.
- Educational session recordings will be available to attendees for 60 days.

All orders will receive on-demand access for 60 days.

Quarterly Conference Call, November 19, 2020

November 19, 2020

[Quarterly Calls](#)

[ACDIS Guidance](#)

The ACDIS Quarterly Membership Conference Call takes place on Thursday, November 19, 2020, 1 p.m. eastern. This call featured a special round table discussion with the ACDIS advisory board leaders.

ACDIS members can register for the call series by [clicking here](#). Call instructions will also be sent to members via email. After registering, you will receive a confirmation email containing information about joining the webinar.

Please note that this is an ACDIS membership benefit and only available to ACDIS members. Please do not share dial-in instructions.

Make sure to dial into the call at least 10 minutes early due to the high caller volume. We look forward to discussing the latest ACDIS news and advice with you.

Note: *This call qualifies for one (1) continuing education credit for Certified Clinical Documentation Specialist (CCDS)/CCDS-Outpatient (CCDS-O) holders. To obtain this credit, you must complete the Key Survey link which will be available shortly following the call. ACDIS members can go back in [the call archives](#) one calendar year to obtain credits from the calls they may have missed.*

The ACDIS PODCAST: Talking CDI

Join ACDIS Director Brian Murphy every other Wednesday for the ACDIS Podcast: Talking CDI, a bi-weekly live podcast covering the hottest topics in CDI.

During each ACDIS Podcast episode, Brian Murphy and a co-host chat with a special guest including industry leaders, ACDIS advisory board members, physicians and physician advisors, and CDI managers and specialists. You'll hear about best practices, tips, and the latest ACDIS and CDI-related healthcare news. This lively 30-minute program will keep CDI and HIM professionals entertained and up-to-date on the pulse of the CDI industry.

Tune in every other Wednesday at 11:30 a.m. eastern.

Can't listen live? [Subscribe on Apple Podcasts](#), [Google Play](#), or [Spotify](#) and listen on the go. The on-demand podcast goes live the Friday following the live show date.

We would like to hear from you! We are requesting suggestions for information to be included in our AzACDIS Newsletter. We are also looking for volunteers to write an article to be featured in an upcoming newsletter. Please email Sydni Johnson at Sydni.Johnson@BannerHealth.com with ideas or if you are interested in contributing to the newsletter.
